Contains NO CBI

RHÔNE-POULENC

TOXICOLOGY DEPARTMENT
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INTERNATIONAL TELEX NUMBER 4999378–ANSWERBACK APC RTP

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October 5, 1992

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

8EHQ-92-12596
88920010780
INIT

Document Processing Center (TS-790)
Office of Toxic Substances
US Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Attn: Section 8(e) Coordinator (CAP Agreement)

RE: Report Submitted Pursuant to the TSCA Section 8(e) Compliance Audit Program

CAP ID No.: 8ECAP - 0004

Dear Sir/Madam:

On behalf of Rhône-Poulenc Inc. (RPI, CN 5266, Princeton, NJ 08543-5266) and its subsidiary Rhône-Poulenc Ag Company, the attached study report is being submitted to the Environmental Protection Agency (EPA) pursuant to the Toxic Substances Control Act (TSCA) Section 8(e) Compliance Audit Program and the Agreement for a TSCA Section 8(e) Compliance Audit Program (CAP Agreement) executed by RPI and EPA.

The enclosed study report provides information on MC 2600. The CAS number and name for this chemical are 22787-58-2 and phosphorothioic acid, O,O-diethyl ester, O-ester with 1-ethyl-4-hydroxy-6-methyl-2(1H)-pyridone. This chemical was synthesized for pesticide research and development approximately 15 to 20 years ago. To our knowledge, a pesticide application on this chemical has never been submitted to EPA under the Federal Insecticide, Fungicide, and Rodenticide Act.

No claims of confidentiality are made for this submission. The title of the enclosed report is "Acute Oral Toxicity Study in Rats with Mobil Chemical Company's Compound Identified as: MC 2600". The following is a summary of the adverse effects observed in this study.

This study is being submitted under Section 8(e) because of observed clinical signs and the oral LD50 was 7.07 mg/kg with 95% confidence limits of 4.37 to 11.4 mg/kg. Clinical signs included convulsions, tremors, increased respiration, and salivation. The tremors and convulsions were observed only immediately prior to death.

No previous TSCA Section 8(e) notices have been submitted on this chemical. In total, RPI is submitting three copies of the enclosed report and this cover letter: an original and two copies.

3/3/95

Further questions regarding this submission may be directed to the undersigned at 919-549-2222.

Sincerely,

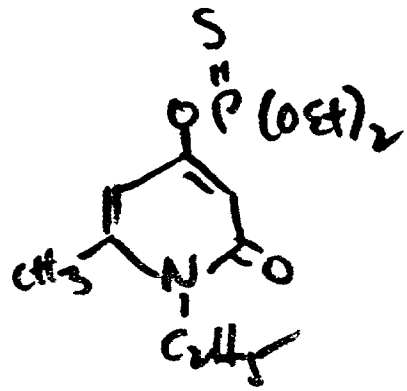
Glenn S. Simon, PhD, DABT
Director of Toxicology

AME Associates
BIOLOGICAL RESEARCH

PRINCETON PIKE, P. O. BOX 57 ■ PRINCETON, N. J. 08540 ■ TEL.: (609) 924-9658

Project #20-225

Acute Oral Toxicity Study in Rats with Mobil Chemical Company's Compound Identified as: MC-2600



Conducted for

Mobil Chemical Company
Edison, New Jersey

Submitted by

AME ASSOCIATES
Princeton, New Jersey

A. M. E. ASSOCIATES P.O. BOX 57 PRINCETON, N. J. 08540

November 24, 1967

PROJECT #20-225

SPONSOR: MOBIL CHEMICAL COMPANY

SUBJECT: Acute Oral Toxicity Study in Rats with Mobil Chemical Company's Compound Identified as: MC-2600

OBJECTIVE

To study the acute oral toxicity in rats of Mobil Chemical Company's compound identified as MC-2600 when administered by means of a stomach catheter.

MATERIAL

Compound MC-2600 supplied by Mobil Chemical Company for use in this study.

PROCEDURE

An approximation of the LD_{50} was attained by administering the chemical compound to a number of rats on each of several levels. Following this, a group of twenty young adult, male albino rats of the Sprague-Dawley Strain weighing approximately 200-250 grams was selected for use in this study. The animals were divided into four subgroups of five animals each and fasted for twenty-four hours prior to dosing.

The experimental material was placed in a syringe and introduced through the esophagus into the stomach with a stainless steel catheter.

Five rats were dosed at 2.50 mg/kg with a 0.1% v/v solution in water (i.e., .01 ml in 10 ml or 0.1 ml in 100 ml). Five rats were dosed at 5.0 mg/kg with a 0.1% v/v solution in water. Five rats were also dosed at 10.0 mg/kg and five at 20.0 mg/kg, both with a 1.0% v/v solution in water (i.e., 0.1 ml in 10 ml or 1.0 ml in 100 ml).

Animals on the same dosage level were then placed in a common cage with free access to food and water. The cages employed had wire mesh floors elevated above the droppings and were kept in temperature controlled rooms at 72°F ± 2°F. Light was furnished for eight out of every twenty-four hour period.

The animals were observed for a fourteen day period and deaths were recorded.

The LD_{50} was calculated using the Thompson Moving Average Method (Biometrics, September, 1952, Vol. 8, No. 3).

RESULTS

Dosage mg/kg	No. of Animals	Number and Days of Death 1 2 3 4 5 6 7 8 9 10 11 12 13 14	Total S*	Total D**
2.5	5	0 0 0 0 0 0 0 0 0 0 0 0 0 0	5	0
5.0	5	1 0 1 0 0 0 0 0 0 0 0 0 0 0	3	2
10.0	5	3 0 0 0 0 0 0 0 0 0 0 0 0 0	2	3
20.0	5	5 0 0 0 0 0 0 0 0 0 0 0 0 0	0	5

*Survivors **Deaths

OBSERVATIONS

Death, preceded immediately by convulsions lasting about 2 minutes, occurred within 10 minutes of dosing on the 20 mg/kg level; two of the rats dosed at this level exhibited exopthalmia and injection of the eyes.

Mortalities on the 10 mg/kg level occurred within 35 minutes for two of the rats that died, and within 2 hours and 15 minutes for the other one. (All evidenced watery eyes, quick tremors immediately preceding death, and an increase in respiration immediately following dosing.

All rats dosed at the 5 mg/kg level exhibited notable increase in respiratory rate within 50 minutes of dosing; the two deaths were both immediately preceded by tremors; all five revealed increased salivation after dosing.

The rats on the 2.5 mg/kg level evidenced no clincial signs except slight increase in respiratory rate immediately following dosing.

CONCLUSIONS

The oral LD_{50} of Mobil Chemical Company's Compound MC-2600 is 7.07 mg/kg with 95% confidence limits of 4.37 mg/kg to 11.43 mg/kg.

SUBMITTED BY Harry C. Fegley

AME ASSOCIATES
Harry C. Fegley, V.M.D.
Director

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Glenn S. Simon, Ph.D., DABT
Director of Toxicology
Rhône-Poulenc
P.O. Box 12014
2 T.W. Alexander Drive
Research Triangle Park, North Carolina 27709

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

APR 24 1995

EPA acknowledges the receipt of information submitted by your organization under Section 8(e) of the Toxic Substances Control Act (TSCA). For your reference, copies of the first page(s) of your submission(s) are enclosed and display the TSCA §8(e) Document Control Number (e.g., 8EHQ-00-0000) assigned by EPA to your submission(s). Please cite the assigned 8(e) number when submitting follow-up or supplemental information and refer to the reverse side of this page for "EPA Information Requests".

All TSCA 8(e) submissions are placed in the public files unless confidentiality is claimed according to the procedures outlined in Part X of EPA's TSCA §8(e) policy statement (43 FR 11110, March 16, 1978). Confidential submissions received pursuant to the TSCA §8(e) Compliance Audit Program (CAP) should already contain information supporting confidentiality claims. This information is required and should be submitted if not done so previously. To substantiate claims, submit responses to the questions in the enclosure "Support Information for Confidentiality Claims". This same enclosure is used to support confidentiality claims for non-CAP submissions.

Please address any further correspondence with the Agency related to this TSCA 8(e) submission to:

Document Processing Center (7407)
Attn: TSCA Section 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Washington, D.C. 20460-0001

EPA looks forward to continued cooperation with your organization in its ongoing efforts to evaluate and manage potential risks posed by chemicals to health and the environment.

Sincerely,

Terry R. O'Bryan

Terry R. O'Bryan
Risk Analysis Branch

Enclosure 12596A

Triage of 8(e) Submissions

Date sent to triage: 12/14/95

NON-CAP (CAP)

Submission number: 12596A

TSCA Inventory: Y N (D)

Study type (circle appropriate):

Group 1 - Dick Clements (1 copy total)

ECO AQUATO

Group 2 - Ernie Falke (1 copy total)

(ATOX) SBTOX SEN (w/NEUR)

Group 3 - Elizabeth Margosches (1 copy each)

STOX CTOX EPI RTOX GTOX

STOX/ONCO CTOX/ONCO IMMUNO CYTO NEUR

Other (FATE, EXPO, MET, etc.): _____

Notes:

THIS IS THE ORIGINAL 8(e) SUBMISSION; PLEASE REFILE AFTER TRIAGE DATABASE ENTRY

For Contractor Use Only

entire document: (0) 1 2 **pages** 1,2 **pages** 1, 2, NTB

Notes:

Contractor reviewer : PJR **Date:** 5/18/95

CECATS\TRIAGE TRACKING DBASE ENTRY FORM

CECATS DATA: Submission # 8EHQ- 1092-12596 SEQ: A

TYPE: (INT) SUPP FLWP

SUBMITTER NAME: Rhone-Poulenc Inc.

INFORMATION REQUESTED: FLWP DATE:
0501 NO INFO REQUESTED
0502 INFO REQUESTED (TECH)
0503 INFO REQUESTED (VOL ACTIONS)
0504 INFO REQUESTED (REPORTING RATIONALE)

DISPOSITION:
(0539) REFER TO CHEMICAL SCREENING
(0578) CAP NOTICE

VOLUNTARY ACTIONS:
(0481) NO ACTION REPORTED
0482 STUDIES PLANNED/UNDERWAY
0483 NOTIFICATION OF WORKER ACTIVITIES
0484 LABEL/MSDS CHANGES
0485 PROCESS/HANDLING CHANGES
0486 APP/USE DISCONTINUED
0487 PRODUCTION DISCONTINUED
0488 CONFIDENTIAL

SUB. DATE: 10/05/92 OTS DATE: 10/13/92 CSRAD DATE: 03/03/95

CHEMICAL NAME:
Phosphorothioic acid, O,O-diethyl ester, O-ester with 1-ethyl-4-hydroxy-6-methyl-2(1H)-pyridone

CASE
22787-58-2 → mc-2600

INFORMATION TYPE:		P F C
0201	ONCO (HUMAN)	01 02 04
0202	ONCO (ANIMAL)	01 02 04
0203	CELL TRANS (IN VITRO)	01 02 04
0204	MUTA (IN VITRO)	01 02 04
0205	MUTA (IN VIVO)	01 02 04
0206	REPRO/TERATO (HUMAN)	01 02 04
0207	REPRO/TERATO (ANIMAL)	01 02 04
0208	NEURO (HUMAN)	01 02 04
(0209)	NEURO (ANIMAL)	01 02 04
0210	ACUTE TOX. (HUMAN)	01 02 04
0211	CHR. TOX. (HUMAN)	01 02 04
(0212)	ACUTE TOX. (ANIMAL)	01 02 04
0213	SUB ACUTE TOX (ANIMAL)	01 02 04
0214	SUB CHRONIC TOX (ANIMAL)	01 02 04
0215	CHRONIC TOX (ANIMAL)	01 02 04

INFORMATION TYPE:		P F C
0216	EPI/CLIN	01 02 04
0217	HUMAN EXPOS (PROD CONTAM)	01 02 04
0218	HUMAN EXPOS (ACCIDENTAL)	01 02 04
0219	HUMAN EXPOS (MONITORING)	01 02 04
0220	BCO/AQUA TOX	01 02 04
0221	ENV. OCCC/REL/FATE	01 02 04
0222	EMER INCI OF ENV CONTAM	01 02 04
0223	RESPONSE REQEST DELAY	01 02 04
0224	PROD/COMP/CHEM ID	01 02 04
0225	REPORTING RATIONALE	01 02 04
0226	CONFIDENTIAL	01 02 04
0227	ALLERG (HUMAN)	01 02 04
0228	ALLERG (ANIMAL)	01 02 04
0239	METAB/PHARMACO (ANIMAL)	01 02 04
0240	METAB/PHARMACO (HUMAN)	01 02 04

INFORMATION TYPE:		P F C
0241	IMMUNO (ANIMAL)	01 02 04
0242	IMMUNO (HUMAN)	01 02 04
(0243)	CHEM/PHYS PROP	01 02 04
0244	CLASTO (IN VITRO)	01 02 04
0245	CLASTO (ANIMAL)	01 02 04
0246	CLASTO (HUMAN)	01 02 04
0247	DNA DAM/REPAIR	01 02 04
(0248)	PROD/USE/PROC	01 02 04
0251	MSDS	01 02 04
0299	OTHER	01 02 04

TRIAGE DATE:

NON-CBI INVENTORY
YES
CAS SR NO
(IN INVENTORY)

ONGOING REVIEW
YES (DROP/REFER)
NO (CONTINUE)

SPECIES: RAT

TOXICOLOGICAL CONCERN:
LOW
MED
(HIGH) Acute Oral Toxicity

USE: Pesticide R.D

PRODUCTION:

12596A
Acute Oral Toxicity - High

Acute oral toxicity is high based on a calculated LD_{50} of 7.07 mg/kg in rats. Mortality and corresponding doses (mg/kg) were 0/5 (2.5), 2/5 (5), 3/5 (10), and 5/5 (20). Convulsions (20), tremors (5, 10) and increased respiration (2.5, 5, 10) were observed.